

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)Applicant's or agent's file reference
see form PCT/ISA/220**FOR FURTHER ACTION**
See paragraph 2 belowInternational application No.
PCT/IB2004/000912International filing date (day/month/year)
26.03.2004Priority date (day/month/year)
28.03.2003International Patent Classification (IPC) or both national classification and IPC
B60G21/055Applicant
AISIN SEIKI KABUSHIKI KAISHA

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/B2004/000912

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2004/000912

Box No. II Priority

1. ☒ The following document has not been furnished:

- ☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).
- ☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-11
	No: Claims	
Inventive step (IS)	Yes: Claims	5,6,7,8,11
	No: Claims	1,2,3,4,9,10
Industrial applicability (IA)	Yes: Claims	1-11
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

- 1 The following documents are referred to in this communication:
 - D1 : DE 198 50 169 C (HEYNAU ANTRIEBSTECHNIK GMBH) 27 July 2000 (2000-07-27)
 - D2 : PATENT ABSTRACTS OF JAPAN vol. 0154, no. 37 (M-1176), 7 November 1991 (1991-11-07) &; JP 3 182832 A (MAZDA MOTOR CORP), 8 August 1991 (1991-08-08)
 - D3 : WO 99/67100 A (BOSCH GMBH ROBERT ; SCHUELKE ARMIN (DE); STOLLER ROLAND (DE); VERHAGEN) 29 December 1999 (1999-12-29)
- 2 INDEPENDENT CLAIM 1
 - 2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject matter of claim 1 does not involve an inventive step in the sense of Article 33(3)PCT.
 - 2.1.1 Document D1, which is considered to represent the most relevant state of the art to the subject matter of claim 1, discloses (see figures 1, 2; the references in parenthesis applying to this document):
a vehicle stabilizer control device comprising a pair of stabilizer bars (1.1,2.1,1.2,2.2) provided between a left wheel and a right wheel of a vehicle, and an actuator (5) including a reduction mechanism (12) connecting between said pair of stabilizer bars (2.1,2.2) and a motor (6) connected to the reduction mechanism (12) for providing torsion force to said pair of stabilizer bars (2.1,2.2) through the reduction mechanism, wherein the reduction mechanism (12) comprises a first gear (8) and a second gear (12.2,12.3) for generating relative rotational speeds therebetween.
 - 2.1.1a Document D3 also discloses (see figure 2) a very similar to document D1 stabilizer control device comprising a pair of stabilizer bars (11,12), a reduction mechanism (8) and a motor (6).
 - 2.1.2 The subject-matter of independent claim 1 differs from the disclosure of D1 in that :

- the first gear and the second gear are coaxially placed adjacent to each other, and
- opposed side faces of stabilizer bars are adjacently connected with the first gear and the second gear respectively and disposed in the reduction mechanism.

2.1.3 The problem to be solved by the present invention may therefore be regarded as designing a more compact reduction gear mechanism while, at the same time, the effective lengths of the torsion sections of the bars is not very much affected by the incorporation of the actuator mechanism.

2.1.4 In view of D2 the solution proposed in claim 1 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT) for the following reasons:
Document D2 discloses (see figures 3,6,7,8) several gear arrangements for stabilizer bar reduction mechanisms having very similar performance characteristics, wherein (see figure 8) the first gear (44) and the second gear (39) are coaxially placed and wherein (see figures 3,6,7,8) opposed side faces of stabilizer bars (7a,7b) are adjacently connected to respective gears.

2.1.5 Therefore the features disclosed in D1 and D2 would be combined by the skilled person, without exercise of any inventive skills in order to solve the problem posed, as defined above. The proposed solution in independent claim 1 thus cannot be considered inventive (Article 33(3) PCT).

3 DEPENDENT CLAIMS 2, 3, 4, 9,10

Dependent claims 2, 3, 4,9,10 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT), in particular:

- in relation to claim 2, document D2 discloses (see figure 8) a first and a second gear (39,44) having internal gear teeth and a common planetary gear train (40,41,45) engaging the internal gear teeth (39,44); the feature that the internal gear have different number of teeth, is merely a dictated by the specific reduction gear design
- document D2 discloses all technical features of claim 3

- all technical features of claim 4 are known from documents D1 and D2
- all technical features of claims 9,10 are known from document D1

4 DEPENDENT CLAIMS 5,6,7,8,11

The combination of the features of dependent claims 5,6,7,8,11 are neither known from, nor rendered obvious by, the available prior art.

Re Item VIII

Certain observations on the international application

The stabilizer reduction mechanism as disclosed in claim 1, is not clear to the point that a person skilled in the art will have difficulty in constructing said reduction mechanism. This is due to the fact that essential technical features are missing from claim 1, such as features related to the motor connection to the gear reduction mechanism.